

HL7 FINLAND

# **FINNISH HEALTH DATA HACKATHON**

Intro to the Wallets and NCPs

December 19, 2025

# HL7 FINLAND



Affiliate | Denmark 



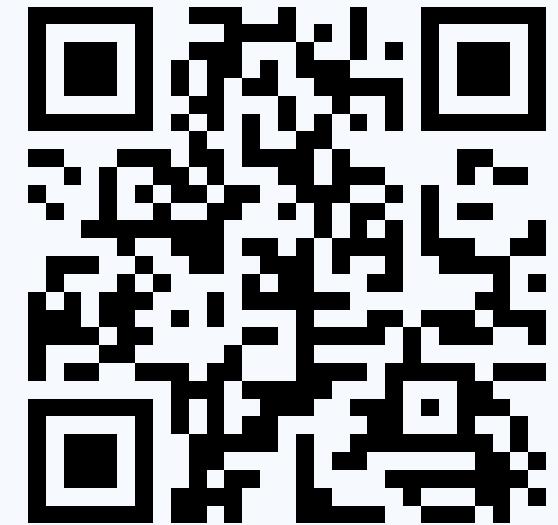
Affiliate | Norway 



senso<sup>o</sup>trend

# AGENDA

- EU Projects presentation
  - myH@myH
  - xShare
- EUDI Wallet presentation
- Use cases in the projects
- Q&A
- Testing Lab in EU Projects
- Continuous testing session for EHDS
- Gazelle presentation and demo
- Wrap up and connection with the other webinars
- Logistics of the Finnish Health Data Hackathon
- Q&A



[fhir.fi/hackathon](http://fhir.fi/hackathon)

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# **EU Projects presentation: myH@myH and xShare**

*Zoltan Lantos, coordinator of myH@myH*

*Argiris Gkogkidis, xShare WP3 Lead*

# Health at Our Fingertips

## Through Digital Public Service Delivery



EU Digital Identity  
**Wallet**



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opinions expressed are however those of  
the author(s) only and do not necessarily  
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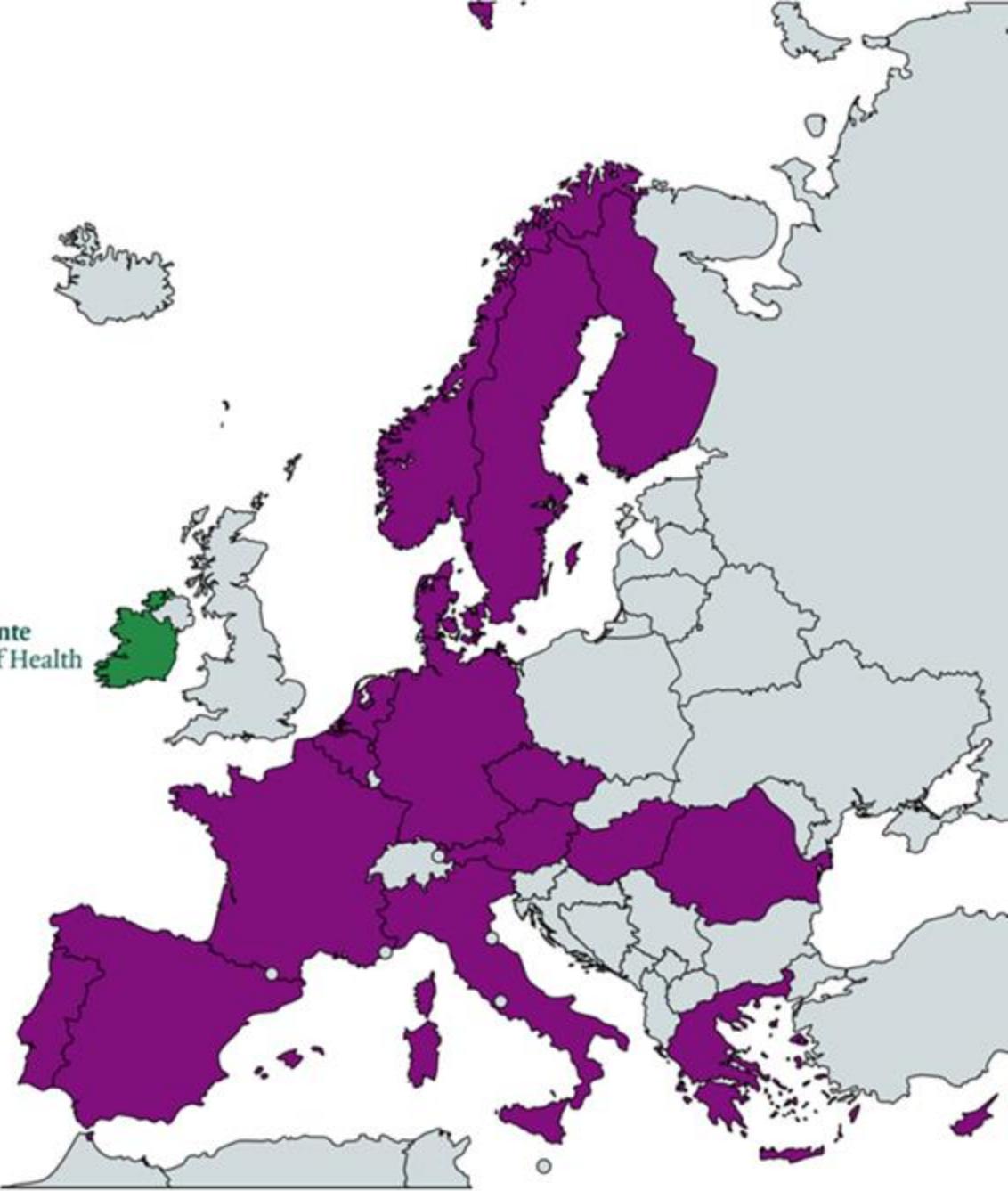




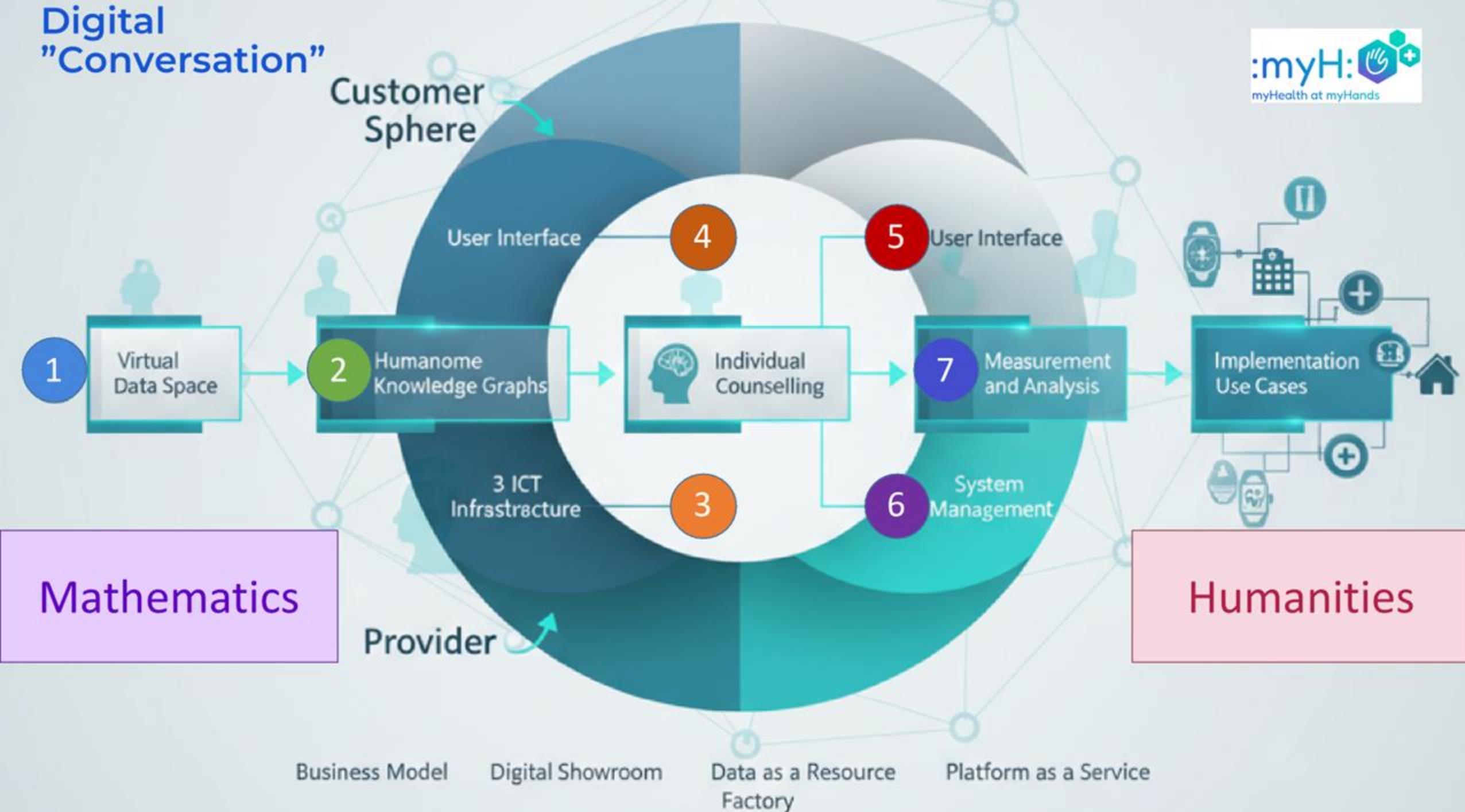
Person-centred health  
management through access to  
your health data using EUDI  
Wallet services  
18 countries, 45 organisations

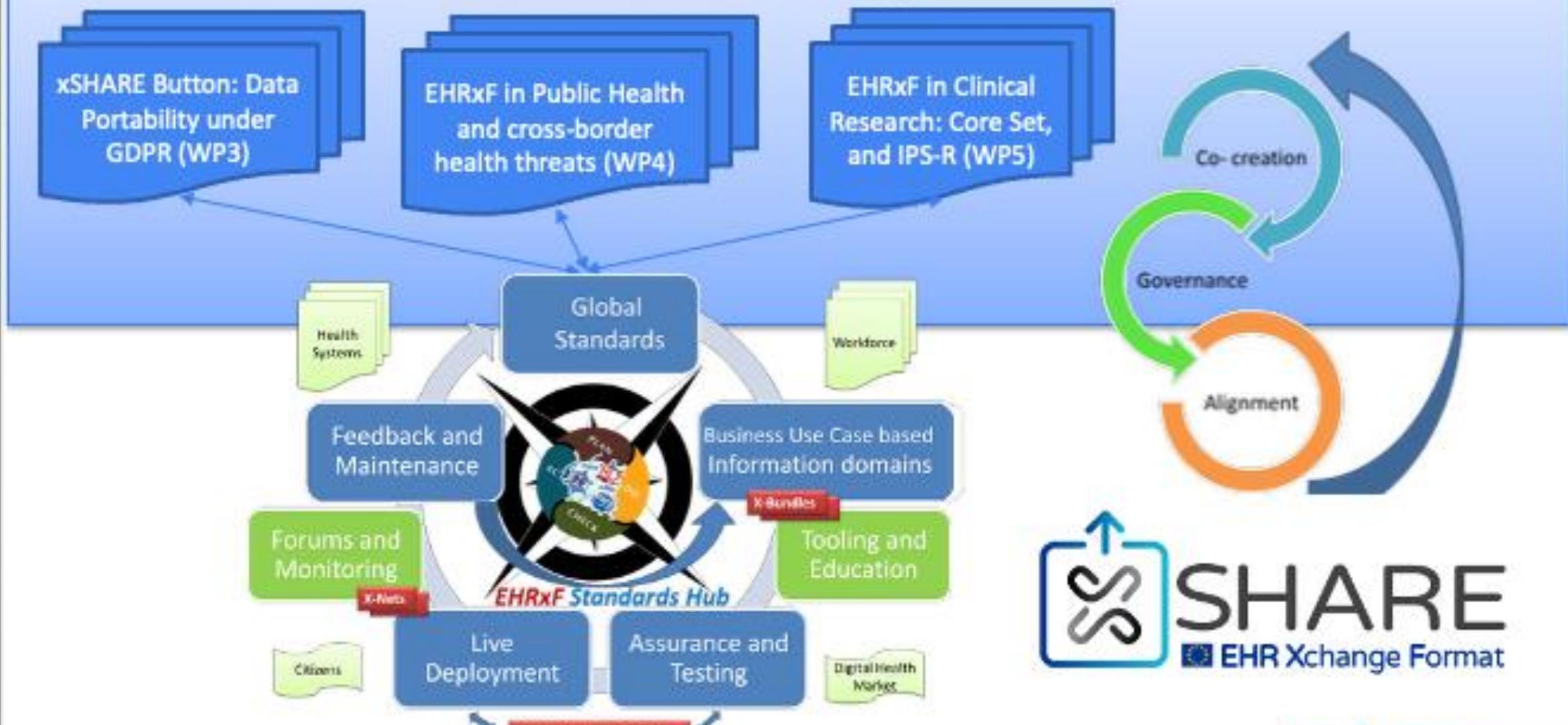


An Roinn Sláinte  
Department of Health



# Digital "Conversation"





European EHRxF adoption monitoring in the EHDS (WP6)

Capacity Building, Cybersecurity & Privacy, and Innovative Procurement (WP7)

xShare Industry Label, Policy Recommendations and Business Viability (WP9)

# xShare “Yellow” Button Vision



**Click 'n share their health data in EEHRxF at click-of-a-button**



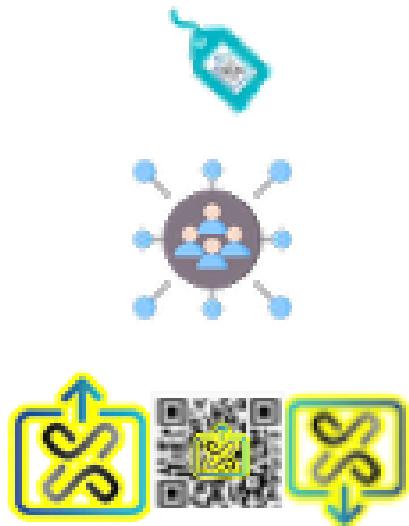
Download



One-time share



Linked options



Laboratory Report



Hospital Discharge Report



Patient Summary



Imaging Report



ePrescription/ Dispense



IPS+R for Research



Care Plans

Contact xShare: [info@xshare-project.eu](mailto:info@xshare-project.eu)



Co-funded by  
the European Union

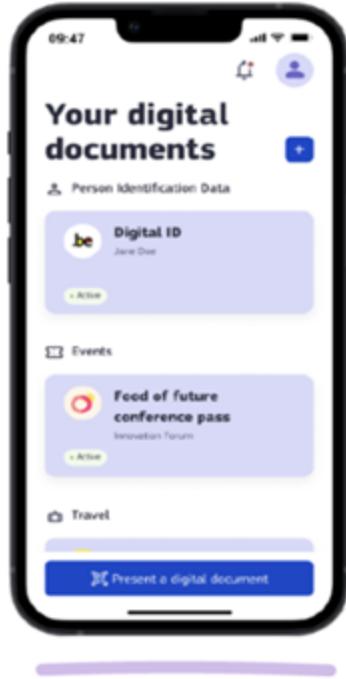


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# Wallet presentation

*Zoltan Lantos, coordinator of myH@myH*

# User Interface of the Data Value Chain



Identification and authentication

Presentation of "attributes"

Digital signature

<https://github.com/eu-digital-identity-wallet>

# Scope of the current source-code publication

Release 202512

Issuing, Presenting and Signing with the EUDI Wallet proximity & remote (Android and iOS)

## Features

- Issuance of PID and Electronic Attestations of Attributes.
- Holding and presenting credentials in remote and proximity scenarios.
- Support for different variants of remote Qualified Electronic Signatures (rQES).
- User friendly UI
- Custom Key Management Support

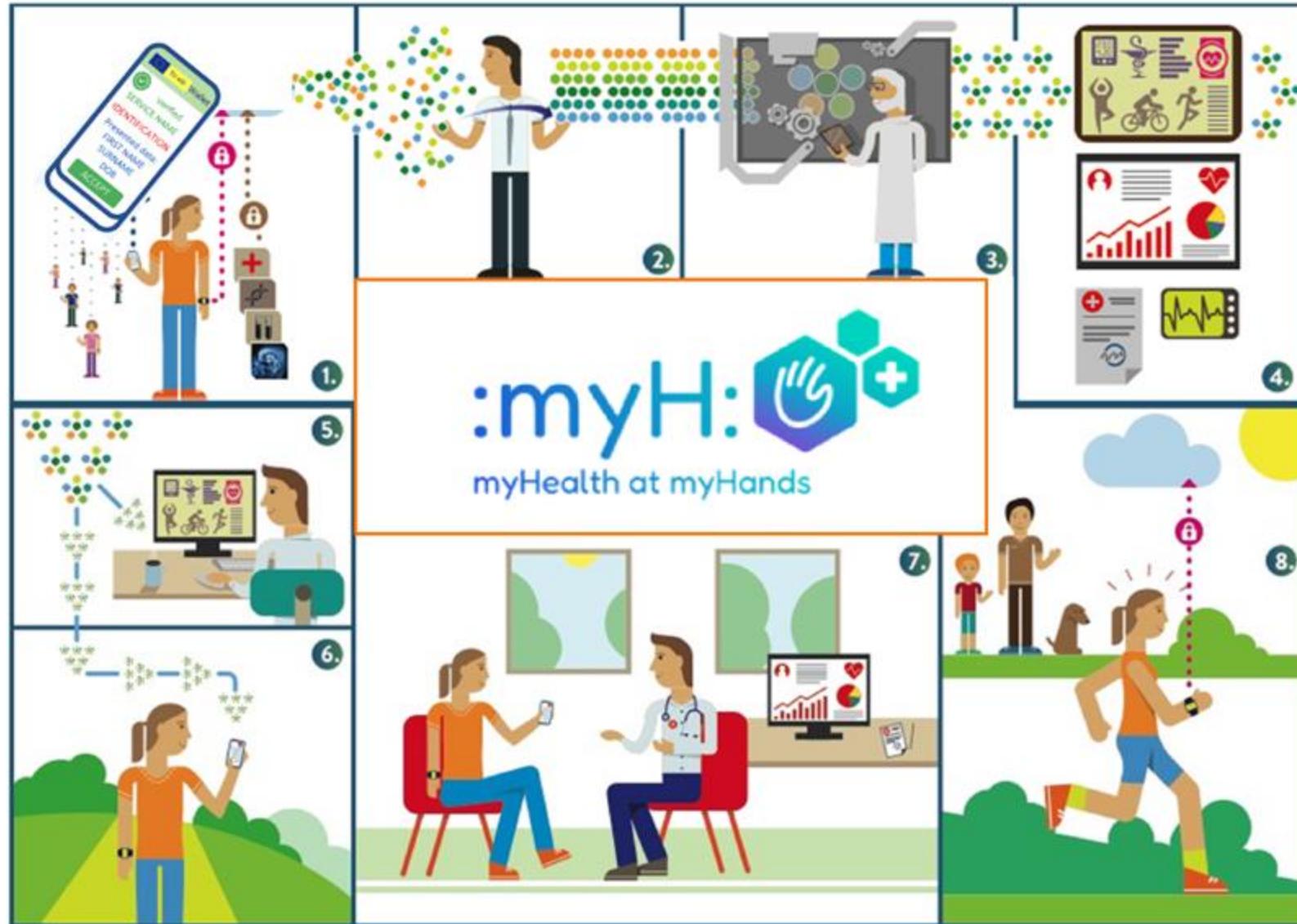
## Technologies and standards

- Remote: OpenID4VP 1.0 (mDoc and SD-JWT VC)
- Proximity: ISO/IEC 18013-5
- Issuing: OID4VCI 1.0 (mDoc and SD-JWT VC)
- Remote Electronic Signing (rQES)
- HAIP 04 (Including WUA and WIA support)

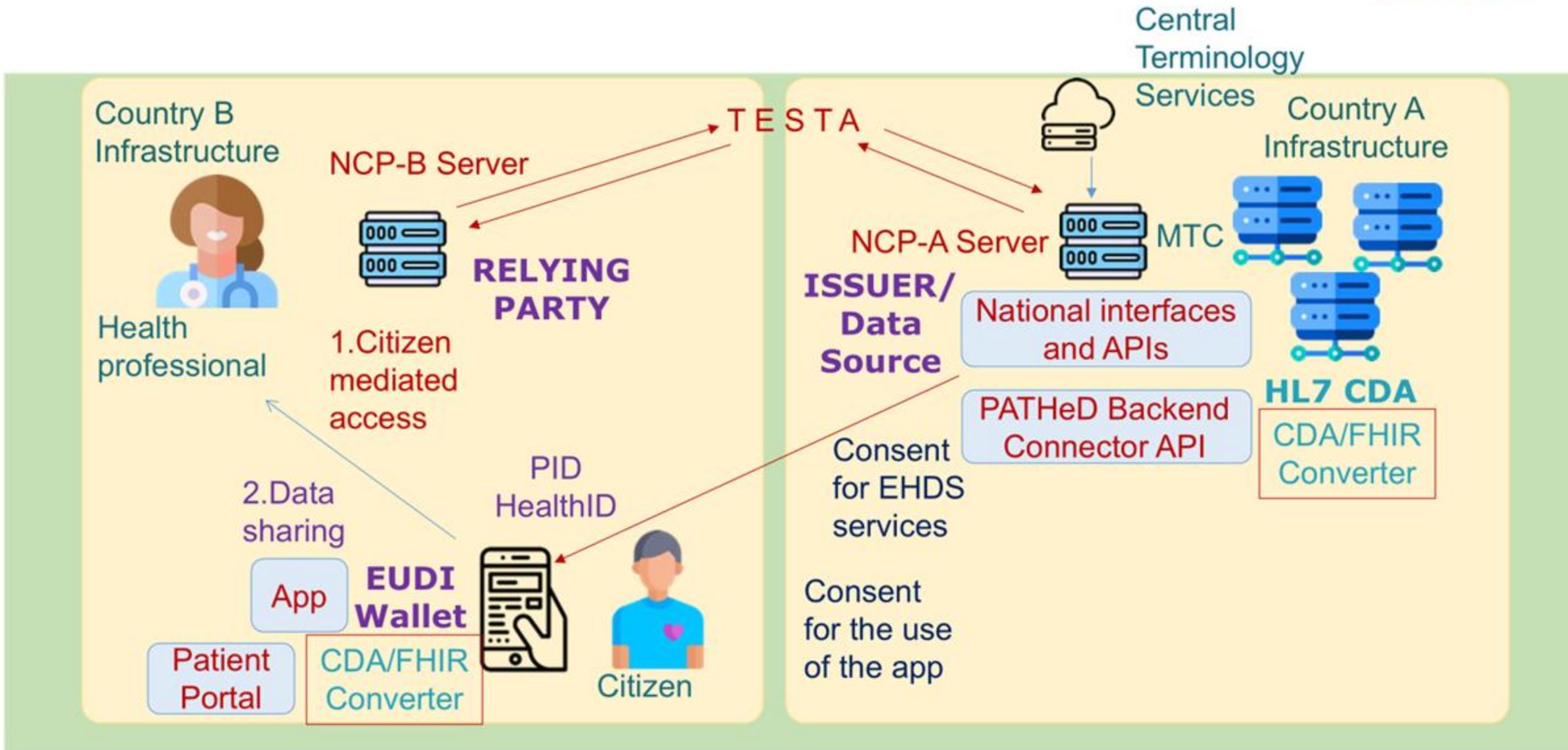
## Use case support

- mDL
- e-prescriptions
- travel use cases
- Social security
- Diplomas
- Etc.

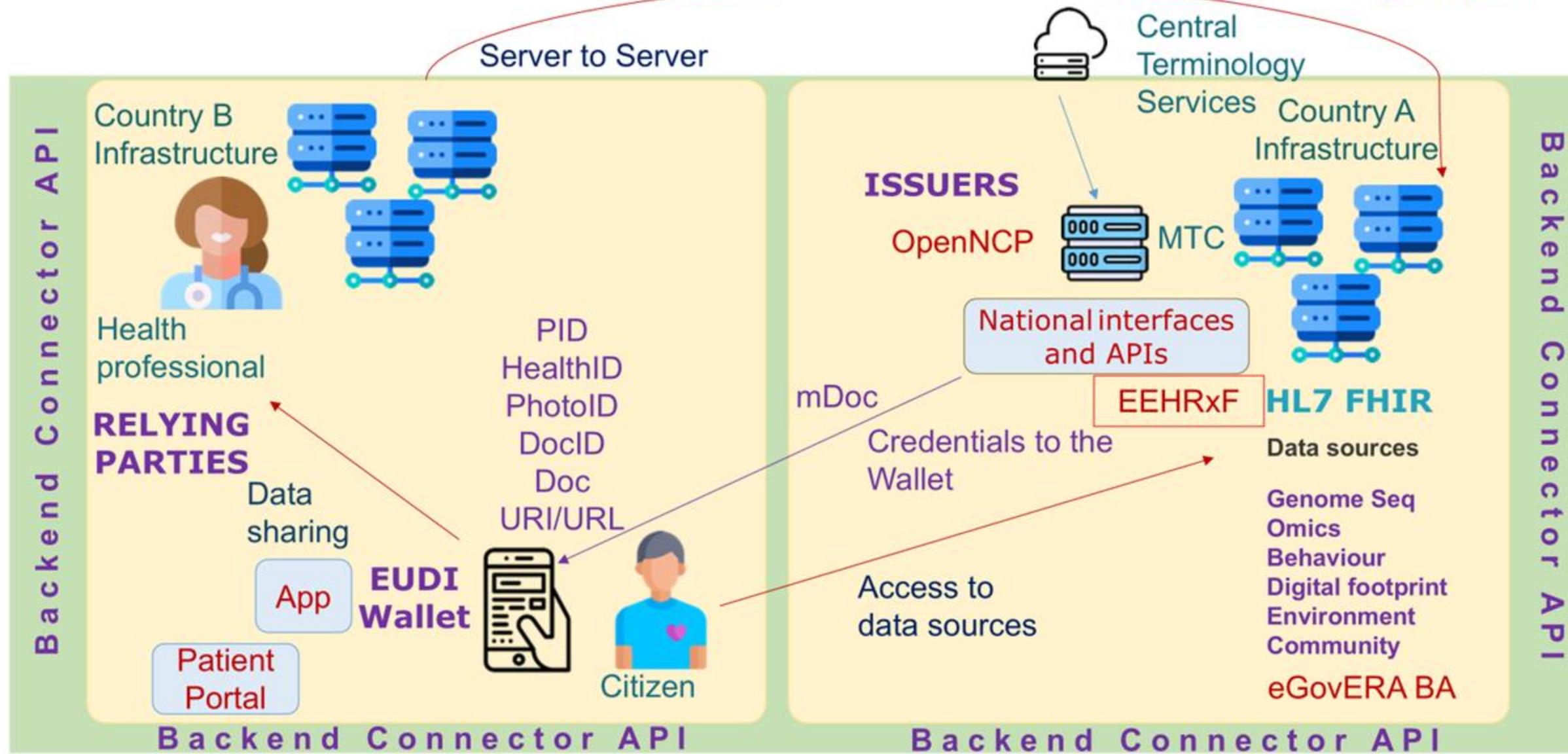
# A Gateway to Patient Autonomy



# MyHealth@EU-Based Scenario



# EUDI Wallet-Based Scenario



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# Use cases in the EU projects

*Sofia Franconi, IHE-Europe Interoperability lead*

*Argiris Gkogkidis, xShare WP3 Lead and MH@MH WP5 Co-Lead*

*Nicole Veggiotti, IHE Catalyst European Affairs Project Owner*

# **xShare use cases: Download/Upload**

Step 1: Create your IPS document (v1.2 FHIR IPS)

Step 1.1: Convert your CDA to FHIR (Optional)

Step 2: Validate the conformance of your IPS document against  
xShare FHIR Implementation Guide

Optional step: Authenticate and authorize user

Step 3: Use of the Yellow Button in an application

Step 4: Download IPS in machine readable format (FHIR Bundle)

- Step 4.1: UC1 Upload IPS on consumer application/visualize  
FHIR Bundle

# xShare use cases: One Time Share

Step 1: Create your IPS document (v1.2 FHIR IPS)

Step 1.1: Convert your CDA to FHIR (Optional)

Step 2: Validate the conformance of your IPS document against xShare FHIR Implementation Guide

Optional step: Authenticate and authorize user

Step 3: Use the selection step of your app to show that you are able to search for a specific document for a specific person

Step 4: Generate the SHL and copy the link in the test step.

Step 5: Retrieve your IPS using Smart Health Links

- Step 5.1: Access the SHL Manifest through the SHL
- Step 5.2: Access the document through the SHL Manifest

# MyHealth@MyHands use cases

UC1 Authenticate user in an Online pharmacy context

Request for HealthID, and PID attributes, authenticate user

Retrieve available eP for the user

eD is out of scope

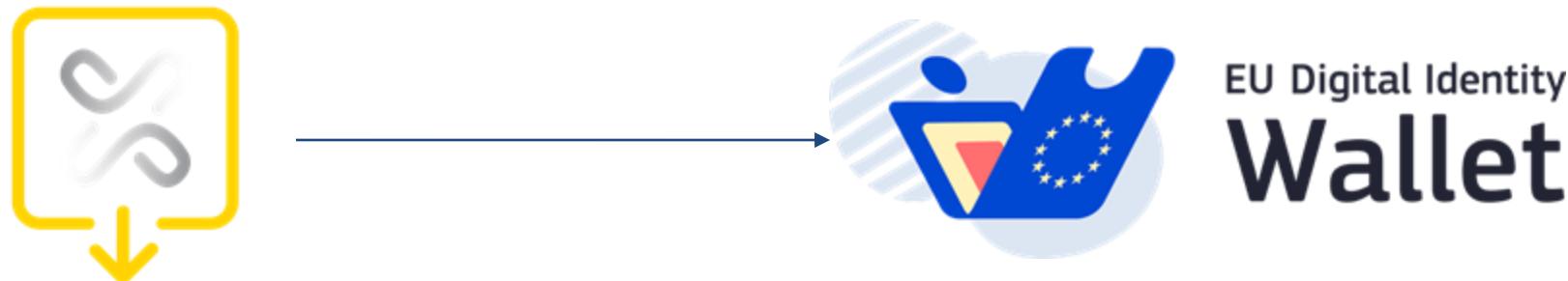
UC2 Issuer to provide in mDoc current medication list, allergies or vaccination information to the wallet

We need to define the namespaces needed for these new mDoc(s)

# **xShare & Wallet in these use cases**

UC3 - xShare Yellow Button to act as Issuer in EDUI Wallet.

Still needs to be defined the mDoc format and content (ex SHL)



# Similar use case for i2X (EEHRxF)

- Prepare the clinical document (priority categories) in line with IGs
- Define a way to exchange the document, there is no actually clear specification for sharing, **but proposing IHE profile like MHD (FHIR-based and already widely tested) for query and retrieve content (FHIR documents) - sharing simple documents**
- Showing that the consumer is able to see the document through a screenshot (computer readable format/human readable format)

# Q&A

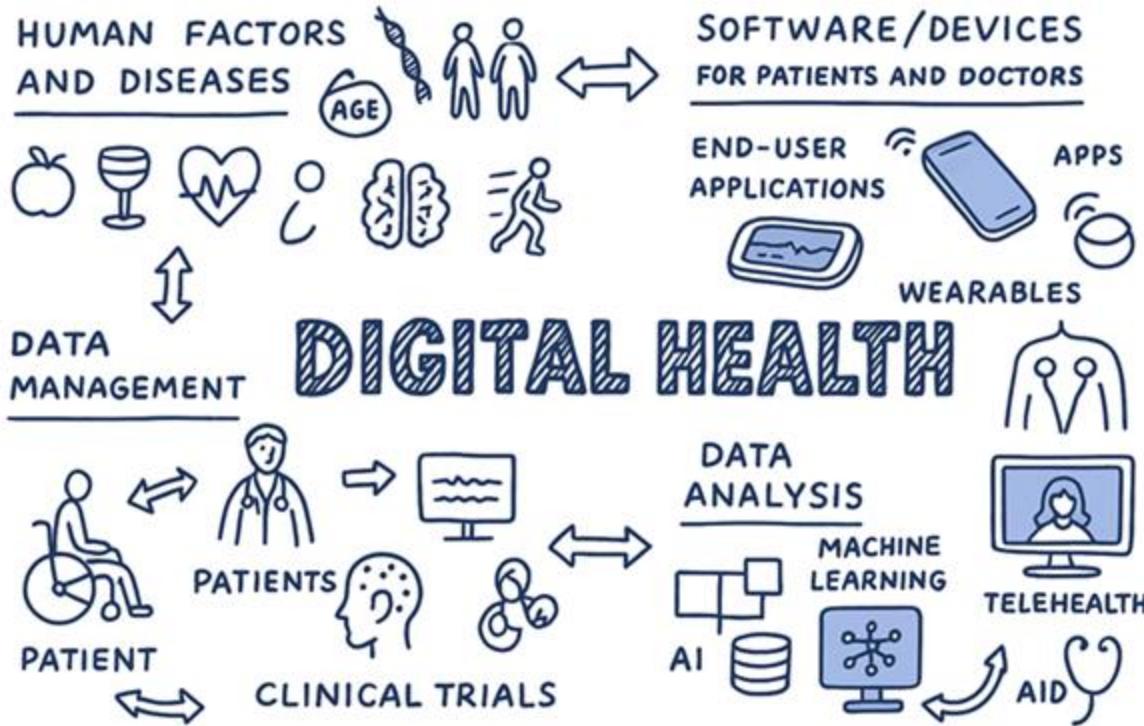
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# Testing Lab in EU Projects

*Alexander Berler,*

*IHE Catalyst Strategic Business Development Director*

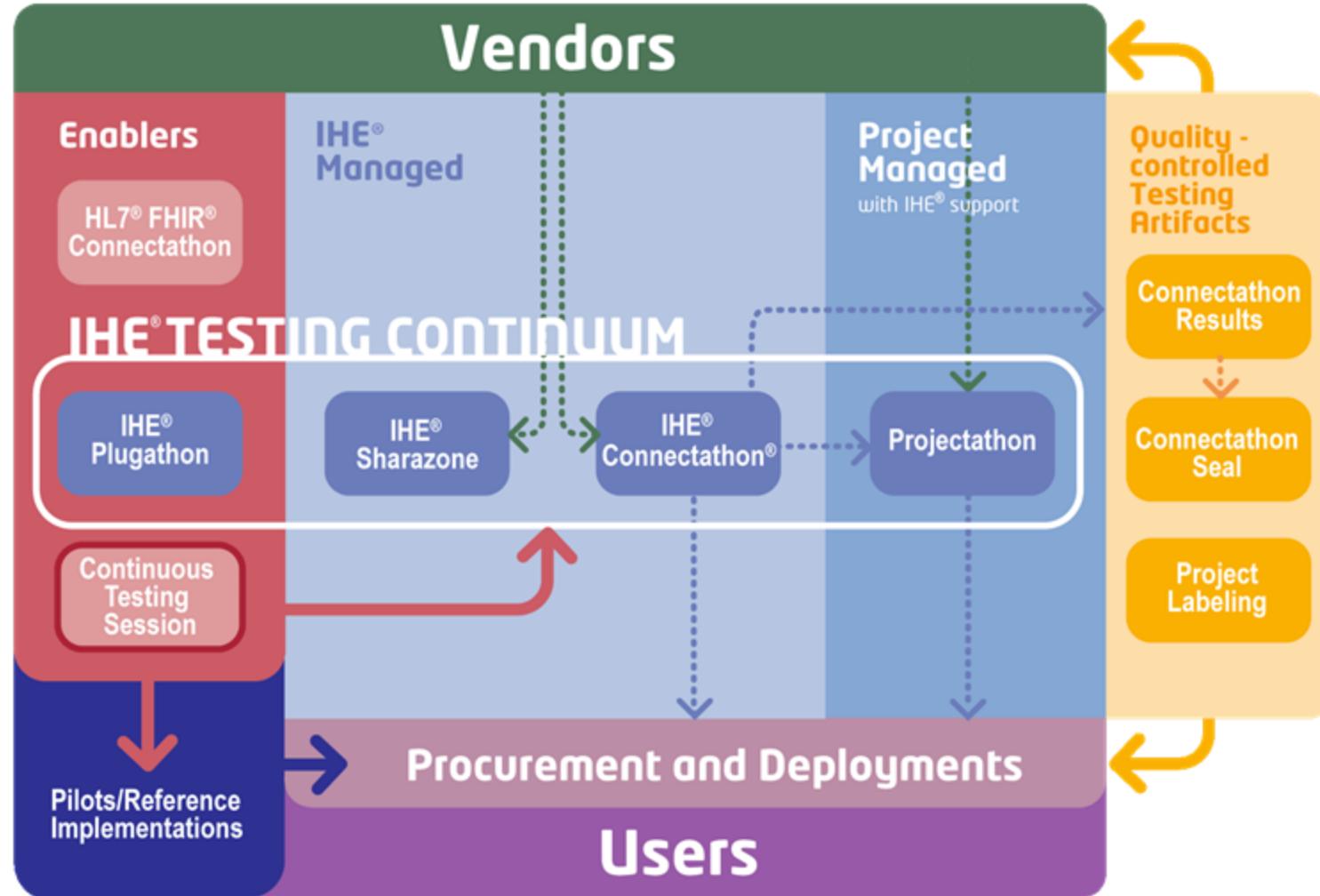
# Healthcare is changing... need Interoperability by design



**Interoperability is a race without a finish line:**

- New clinical knowledge
- New technologies and data resources
- Organization and regulatory shifts
- New requirements of data flow and consumption across the ecosystem
- New data standards to map to legacy
- Ensuring compliance is key

# IHE Testing Continuum



# IHE Methodology for specifications

**Define Use Cases:** Testing begins from real-life clinical and technical workflows.

**Map to IHE Profiles/Project Specifications:** Each use case is linked to the appropriate IHE profiles. Actors, transactions, and interoperability roles are clearly identified.

**Create Test Scenarios:** Test cases are defined.

**Execute Testing in Iterative Phases:** Self-testing to verify readiness and on-site peer-to-peer testing for final validation and alignment

**Track Progress and Report Results:** Results are documented, maturity levels are monitored, and feedback loops ensure continuous improvement.

# IHE Testing strategy

## EHDS Testing lab tools:

- Continuous Session for EHDS open for EU projects
- Validation only is not enough, so we need the concept of use cases
- Different type of testing (no-peer and peer-to-peer testing)
- Educational session: workshop on IHE profiles
- Type of events (IHE Connectathon, IHE Plugathon, Projectathon)

# Type of testing events

Event Type	Purpose	Audience	Formality	Scope
IHE Plugathon	<p>Learn and experiment with standards, APIs, and IHE/FHIR profiles</p> <p>e.g. Vienna IHE Plugathon with EHDS track 2025 — developers test FHIR APIs and IHE profiles in a sandbox environment</p>	Developers, startups, researchers	Informal	Early-stage, innovation and education
Projectathon	<p>Validate interoperability within a specific project, national program, or regulation</p> <p>e.g. epSOS Projectathon and MyHealth@EU Projectathon — testing cross-border health data exchange and project-specific use cases</p>	National/EU projects, implementers, public authorities	Semi-formal	Project or domain-specific (IHE + local specs)
IHE Connectathon	<p>Verify interoperability and conformance between vendor systems using IHE profiles</p> <p>e.g. IHE-Europe Connectathon Vienna</p>	Vendors, integrators, test engineers	Formal	IHE profiles and interoperability testing

# Type of testing

In IHE, **no-peer testing** is conducted without live partner systems. The implementation is tested against automated tools or simulators that replicate the behavior of a peer. This type of testing is useful for verifying basic compliance with IHE specifications and for preparing a system for subsequent testing phases.

**Peer-to-peer testing**, on the other hand, involves two or more real systems from different vendors connecting directly to exchange data and validate interoperability. This approach simulates real-world interactions and provides a more robust confirmation that systems can communicate effectively in practice.

# The Lab concept



Create and operate an **interoperability framework** as the cornerstone of building complex digital transformation strategies in healthcare



**Bring experts together** and solve problems



**Test** before you implement



**Reuse, collaborate, co-create** do not re-invent the wheel



**Align implementation with real capacity** of the stakeholders and make realistic roadmaps

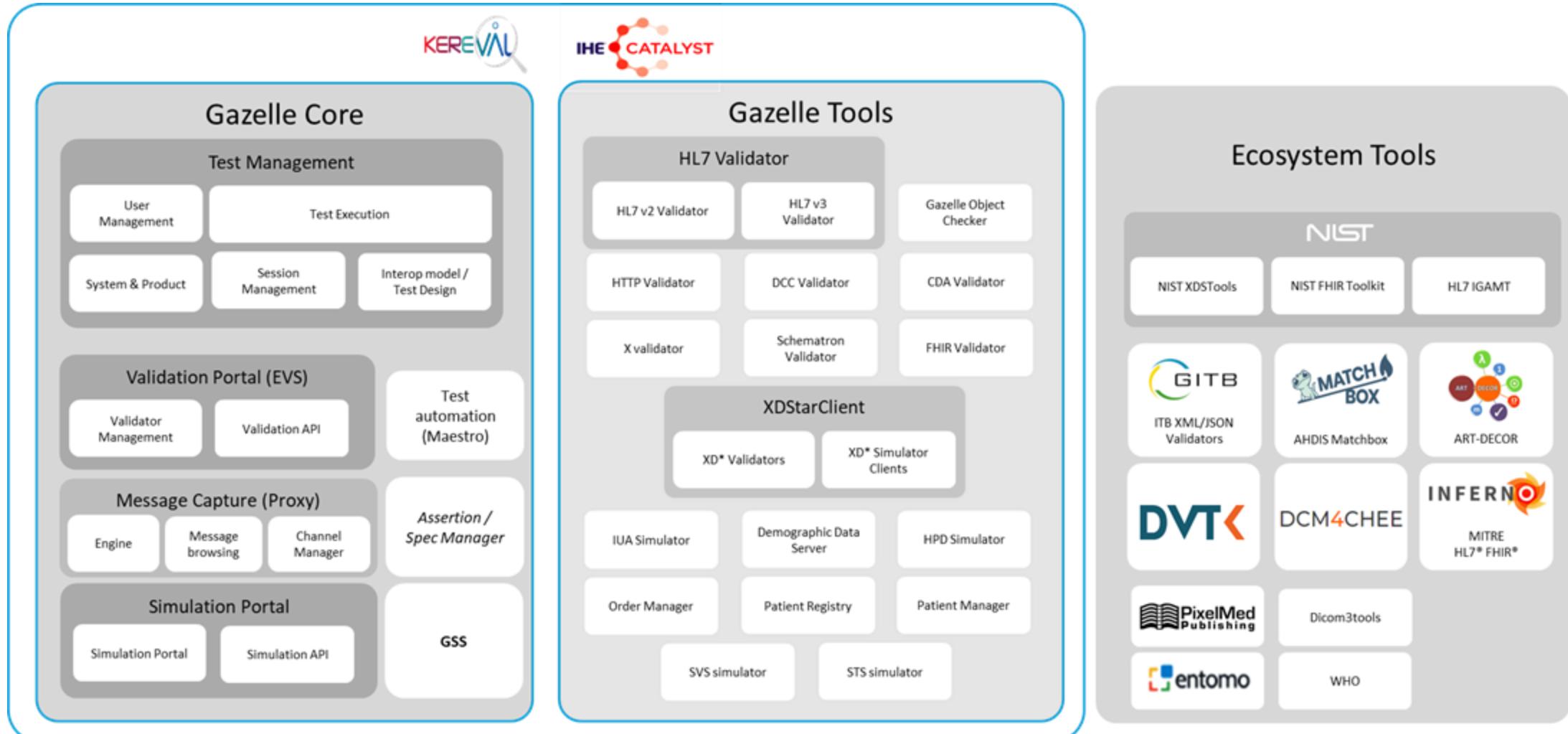


**Perform continuous education** and capacity building



**Enable the ecosystem** of stakeholders

# Ecosystem of connected testing tools



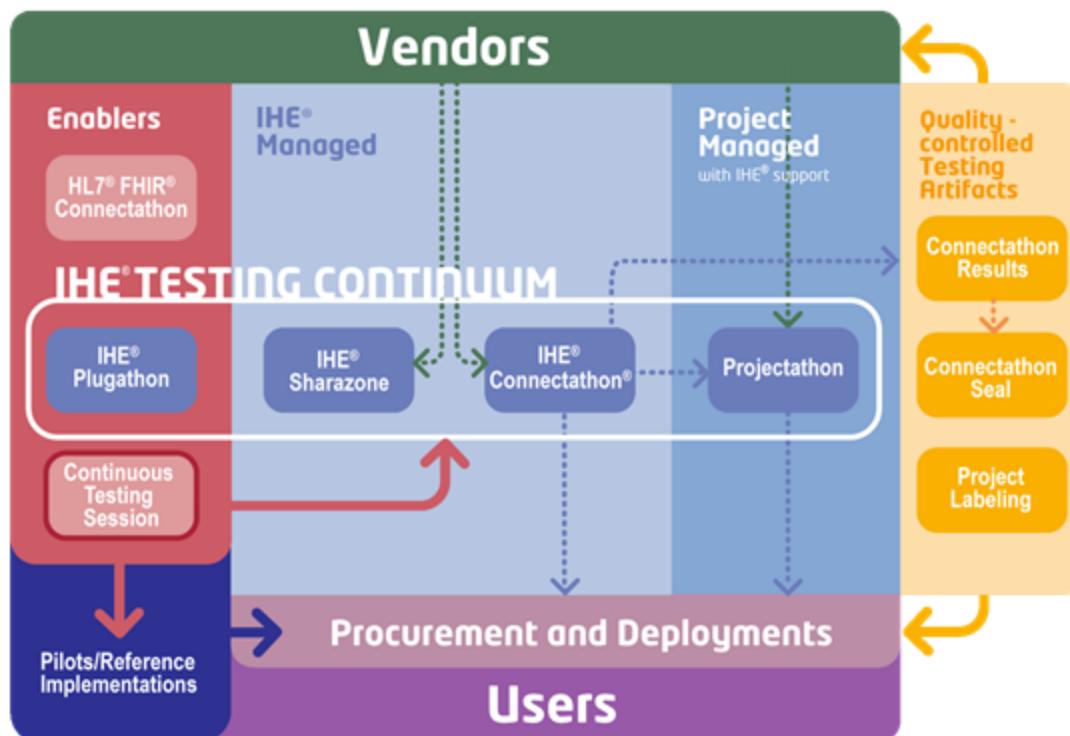
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# **Continuous Testing Session for EHDS**

*Nicole Veggiotti,*

*IHE Catalyst European Affairs Project Owner*

# Continuous Testing Session for EHDS



The Continuous Testing Session for EHDS in support of EHDS-related projects serves as a preliminary and preparatory step towards the IHE Plugathon and Projectathon activities. It offers both a training opportunity and a chance for vendors to collaborate with support teams between events.

# The three pillars

**No-peer testing:** The focus will be on validator and simulator-based testing, without peer-to-peer evaluations. In IHE, no-peer testing is conducted without live partner systems.

**Facilitators:** A facilitator is a Subject Matter Expert (SME) who will follow, help and guide participants in the will accompany participants throughout the process, offering guidance and support to ensure they are prepared for the event.

**Online space:** To support communication and collaboration, participants will also be included in a dedicated Zulip channel, organized by domains.

# New things are coming..

We will adapt the Continuous Testing Session for EHDS based on the requirements and needs of these projects

Putting new things into practice like:

- new validators and introduction of simulators
- peer-to-peer testing
- automated test cases

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# Gazelle Presentation

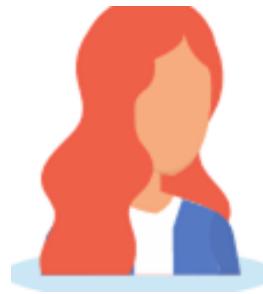
*Anne-Gaëlle Bergé*

*IHE-Europe Connectathon technical manager*

# The mission of Gazelle



**Enforce** interoperability standards by relying on tests



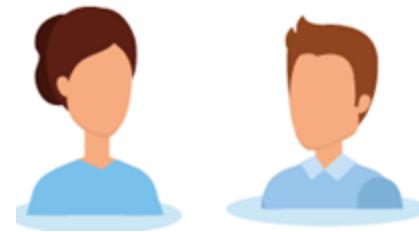
## Conformity

System tested alone with a validation tool to verify that it complies with the standard.



## Group

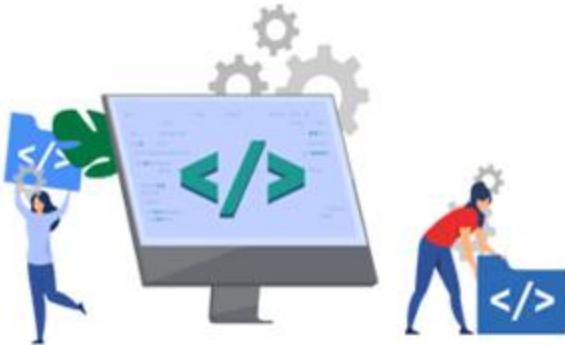
Several systems interact together in a coordinated scenario (e.g., a complete care pathway).



## Peer-to-peer

Two systems test their interoperability directly.

# What is Gazelle?



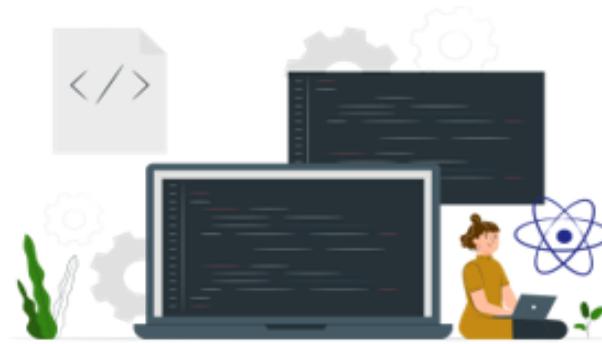
Open source



Collaborative

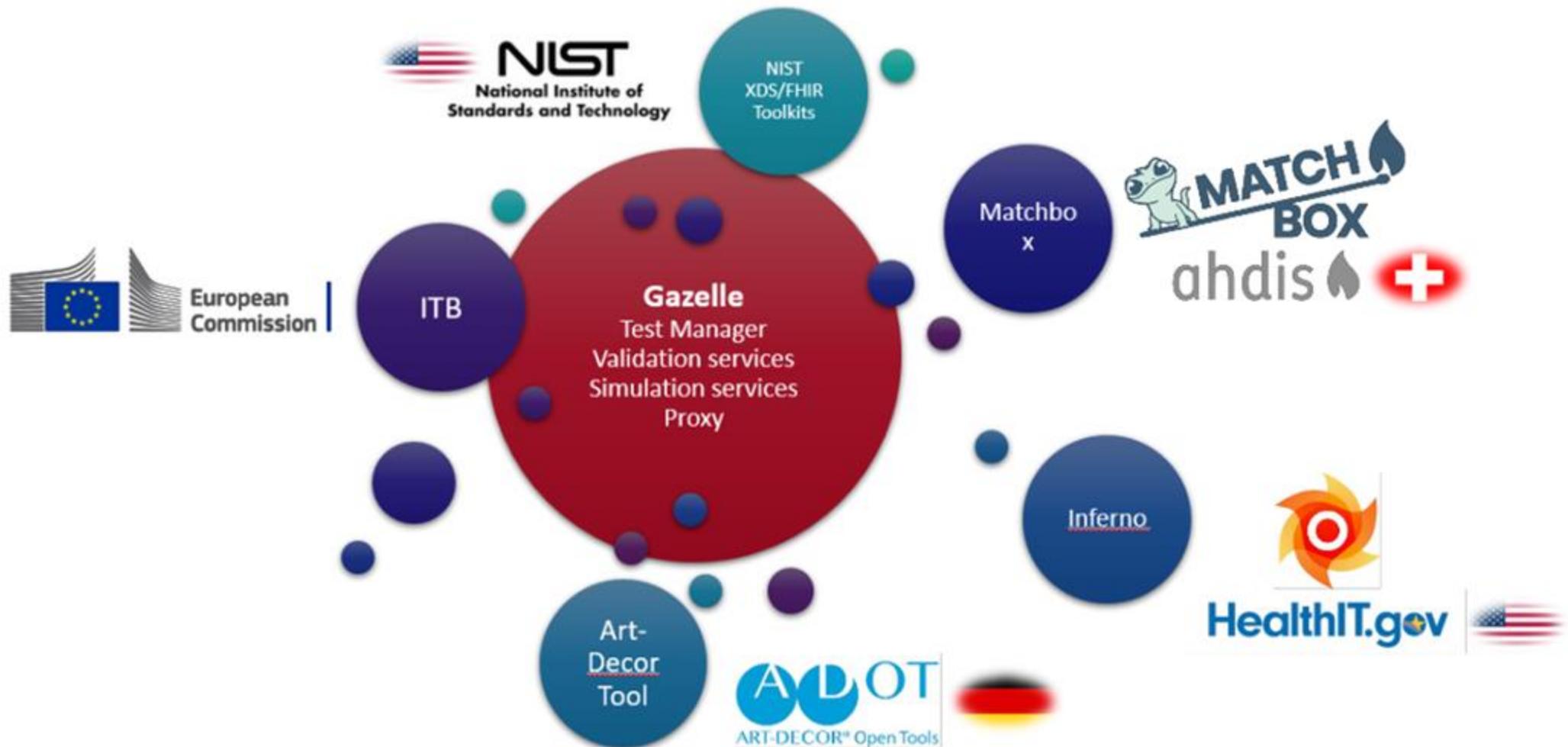


International



Adaptable

# Gazelle in the ecosystem



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# **Gazelle Demo on Continuous Testing Session for EHDS**

*Anne-Gaëlle Bergé*

*IHE-Europe Connectathon technical manager*

# Testing EHDS-related projects with

Set up for the EHDS-related Plugathons in Vienna (June 2025)

- Gazelle Test Management to manage test cases
- Matchbox for validating the content

More to come as use cases and testing needs evolve.

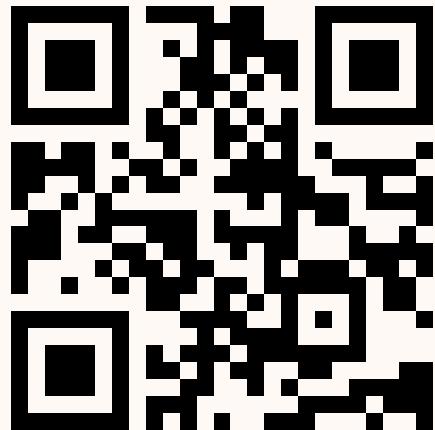
<https://ehds.gazelle-platform.net>

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**Wrap up and  
connection with the  
other webinars**

*Mikael Rinnemäki,  
Founder, Sensotrend Oy*

# NORDIC HEALTH DATA HACKATHONS



[fhir.fi/hackathon](http://fhir.fi/hackathon)



# HL7 Finland 30 Years Symposium

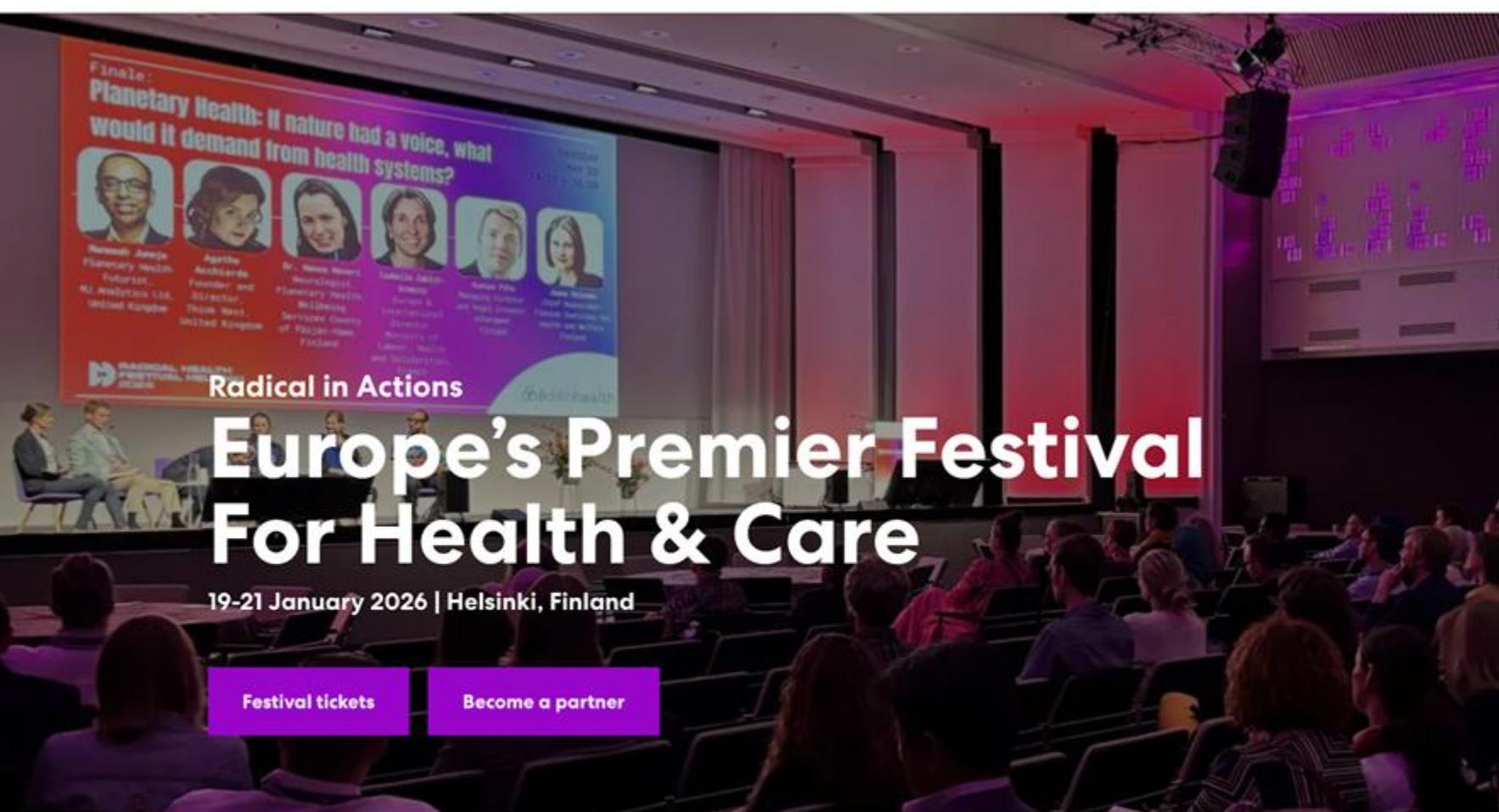
- **Monday, 19 January 2026**
- **Same premises as the hackathon**
- **Requires different registration!**

- **Draft agenda:**  
**9.30-10.00 Coffee**  
**10.00-12.00 Finnish sessions**  
**12.00-13.00 Lunch**  
**13.00-16.00 International sessions**  
**16.00- Networking and drinks**

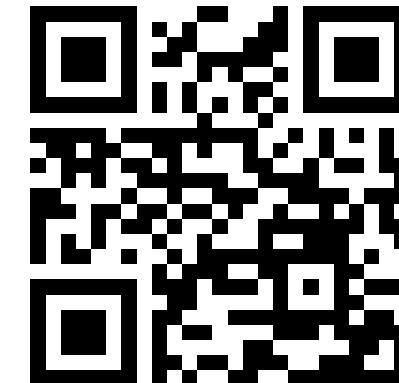


[www.hl7.fi/kokoukset-ja-tapahtumat/hl7-finland-30th-anniversary-symposium/](http://www.hl7.fi/kokoukset-ja-tapahtumat/hl7-finland-30th-anniversary-symposium/)



# Europe's Premier Festival For Health & Care

19-21 January 2026 | Helsinki, Finland

[Festival tickets](#)[Become a partner](#)

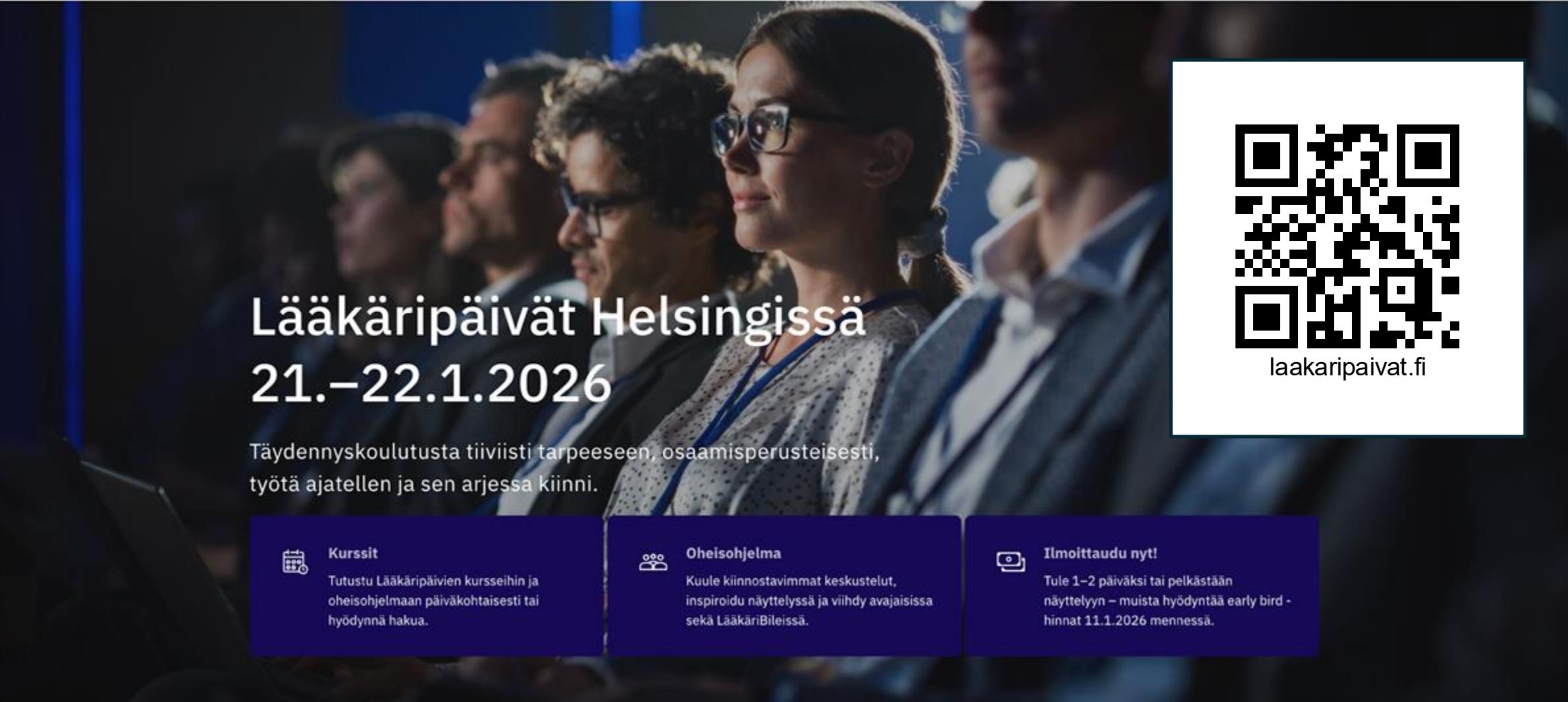
radicalhealthfest.com

## Operationalising Precision Health

Radical Health Festival Helsinki is where bold ideas meet real action — and where new alliances for health are born.

We are a festival, not a conference. A movement for those ready to challenge the old ways, rethink prevention and care, and drive health transformation across Europe and beyond. In 2026, we focus on Operationalising Precision Health — making it real, together.





# Lääkäripäivät Helsingissä 21.-22.1.2026

Täydennyskoulutusta tiiviisti tarpeeseen, osaamisperusteisesti, työtä ajatellen ja sen arjessa kiinni.



#### Kurssit

Tutustu Lääkäripäivien kursseihin ja oheisohjelmaan päiväkohtaisesti tai hyödynnä hakua.



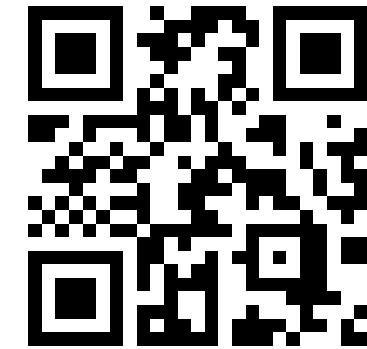
#### Oheisohjelma

Kuule kiinnostavimmat keskustelut, inspiroi näytelyssä ja viihdy avajaisissa sekä LääkärBileissa.



#### Ilmoittaudu nyt!

Tule 1-2 päiväksi tai pelkästään näytelyyn – muista hyödyntää early bird - hinnat 11.1.2026 mennessä.



laakaripaivat.fi

## **Track: Patient Access to Health Data**

- **Finnish SMART App Launch**
- **City of Helsinki / Apotti / Epic**
- **Kanta**
- **xShare Yellow Button**
- **Health Data and Identity Wallets**

# Track: Care Plans and Clinical Reasoning

- Authoring, Publishing, and Sharing Clinical Knowledge
- Defining Clinical Concepts
- Modelling Care Plans and Computable Guidelines
- Testing Clinical Knowledge Against European Synthetic Data
- Integrating Clinical Knowledge

# Webinars

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There will be preparatory webinars in December, introducing the different tracks and the available technologies.

Currently scheduled webinars include:

- **General intro to the hackathon**

Wednesday, December 10, 2025 at 18:00 EET (17:00 CET)

View the [Webinar recording](#), download the presentation ([PowerPoint](#), [PDF](#)).

- **Patient Access track info**

Monday, December 15, 2025 at 18:00 EET (17:00 CET)

View the [Webinar recording](#), download the presentation ([PowerPoint](#), [PDF](#)).

- **Helsinki / Apotti / Epic sub-track info**

Tuesday, December 16, 2025 at 14:00 EET (13:00 CET)

View the [Webinar recording](#), download the presentation ([PDF](#)).

- **Care Plans and Clinical Reasoning track info**

Thursday, December 18, 2025 at 15:00 EET (14:00 CET)

View the [Webinar recording](#), download the presentation ([PDF](#)).

- **Identity Wallets and NCP sub-track info**

Friday, December 19, 2025 at 12:00 EET (11:00 CET)

[Teams link](#), Calendar event: [Google Calendar](#)

There may still be changes to the schedule!

The full list of topics, dates and times of the webinars will be announced later. Keep an eye on this page for updates!

You can add the [calendar](#) containing all webinars and hackathon events to your own calendar application.

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# **Logistics of the Finnish Health Data Hackathon**

*Mikael Rinnemäki,  
Founder, Sensotrend Oy*

# When & Where

- Monday, January 19, 2026, starting at 9:00 EEST
- Some tracks continue on Tuesday, January 20, 2026
- Results presented on Wednesday, January 21, 2026
- Messukeskus / Holiday Inn Helsinki Expo
  - *Rautatieläisenkatu 3, 00520 Helsinki*
  - See Messukeskus on [Google Maps!](#)
  - See the [arrival instructions](#) on Messukeskus website.  
Use the *entrance for meeting guests*.
  - The main space for the hackathon is Room 203 A.

# Participation

- Register in advance
- **No costs involved!**

## Participate

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To take part in the hackathon, please fill in and submit the [registration form](#)!

We will have implementations available at least from

- [Apotti](#)
- [City of Helsinki](#)
- [Duodecim](#)
- [Epic](#)
- [Findynet](#)
- [Forsante](#)
- [Gnomon Informatics](#)
- [HippocrAltes](#)
- [IHE Catalyst](#)
- [Kela](#)
- [MyHealth@MyHands](#)
- [Otos Health](#)
- [Sensotrend](#)
- [Scytáles](#)

The list of available implementations is updated up to the start of the event.

If you want to get listed on this page, or if you want to propose an additional track, please contact Heidi Hakala, the FHIR Ambassador of HL7 Finland, at [heidi.hakala@productivityleap.com](mailto:heidi.hakala@productivityleap.com)!

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# Finnish Health Data Hackathon Registration Form

Register to the Health Data Hackathon on January 19-21 2026

Family Name\*

Enter text

Given Name\*

Enter text

Organization\*

Enter text

# Participating on the Patient Access Track

- Fill in the Google Sheet at  
<https://docs.google.com/spreadsheets/d/1MF02GaMasV3UJtPeZZYTaZ753NqimmJOCHDsZHcktOI/edit?usp=sharing>
- Share your ideas and interests!

A	B	C	D	E	F	G	H	
1+	Tr Organization	Contact	Email	Tr Website	Topics	Tr Products	Tr Goals	Tr Notes
2	Sensotrend Oy	Mikael Rinnetmäki	mikael@sens...	<a href="https://sensotrend.com/">https://sensotrend.com/</a>	Finnish ... City of ... Kanta xShare Identity ...	Sensotrend Connect, a remote monitoring solution for diabetes Sensotrend Care Plan, a care plan app for people living with diabetes Terveystiedot talteen, a patient data access app Sensotrend IPS, an International Patient Summary app	1) Our main priority is to see the hackathon take place and succeed. We want people to come together and build great solutions for healthcare. We want to boost uptake of standards and specifications by demonstrating what can be achieved with them.  2) We want to take this opportunity and further evolve our integration with Apotti, by adding write capabilities of our remote monitoring solution, through the Maisa patient portal. Our app would be sending glucose measurement info (Observations) to Apotti through Maisa in real time. We'd like to see and discuss how the information should be presented in Apotti. We'd use the FHIR CGM spec ( <a href="https://hl7.org/fhir/uv/cgm/">https://hl7.org/fhir/uv/cgm/</a> ) for this.  3) We want to continue our work with Findynet, Eyd, and MyData Global to evaluate how digital identity wallets can be used for storing and sharing patient data. We aim to have an International Patient Summary stored (issued) and visible on multiple wallets in an interoperable way, and hope to learn about ways in which the IPS can be shared from the wallet.  We're also interest in participating on some activities on the Care Plan track.	We have built several integrations to Epic, Cerner/Oracle, and other EHRs over the years. Happy to help if someone needs assistance.  We've implemented the Kanta API for patient-facing apps, and can share insights. We've also implemented the Kanta PHR integration in the past and can discuss our experiences regarding that.  We're part of the EU project MyHealth@MyHands that's also involved on the track, and can share relevant info.  We're involved in the MyData Global project combining, Patient Summaries, Digital Identity Wallets, and AI. Happy to explain that project.
3	Organization	Name	Website		Products	Goals	Notes	
4	Organization	Name	Website		Products	Goals	Notes	
5	Organization	Name	Website		Products	Goals	Notes	
6	Organization	Name	Website		Products	Goals	Notes	

A2

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Scheduled Presentations												
2	Tr Topic	Topics	Start time	End time	Location	Owner	Tr Notes						
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4	Topic		dd/mm/yyyy xx:xx	dd/mm/yyyy xx:xx	Place	Name	Notes						
5	Topic		dd/mm/yyyy xx:xx	dd/mm/yyyy xx:xx	Place	Name	Notes						
6	Topic		dd/mm/yyyy xx:xx	dd/mm/yyyy xx:xx	Place	Name	Notes						
7	Topic		dd/mm/yyyy xx:xx	dd/mm/yyyy xx:xx	Place	Name	Notes						
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19	Topic		dd/mm/yyyy xx:xx	dd/mm/yyyy xx:xx	Place	Name	Notes						
20	Topic		dd/mm/yyyy xx:xx	dd/mm/yyyy xx:xx	Place	Name	Notes						

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A	B	C	D	E	F	G	H	I	J	K
Ideas	Tr	Idea	Status	Owner	Stage	Due date	Tr	Notes		
1		Idea		Name		dd/mm/yyyy	Notes			
2		Idea		Name		dd/mm/yyyy	Notes			
3		Idea		Name		dd/mm/yyyy	Notes			
4		Idea		Name		dd/mm/yyyy	Notes			
5		Idea		Name		dd/mm/yyyy	Notes			
6		Idea		Name		dd/mm/yyyy	Notes			
7		Idea		Name		dd/mm/yyyy	Notes			
8		Idea		Name		dd/mm/yyyy	Notes			
9		Idea		Name		dd/mm/yyyy	Notes			
10		Idea		Name		dd/mm/yyyy	Notes			
11		Idea		Name		dd/mm/yyyy	Notes			
12		Idea		Name		dd/mm/yyyy	Notes			
13		Idea		Name		dd/mm/yyyy	Notes			
14		Idea		Name		dd/mm/yyyy	Notes			
15		Idea		Name		dd/mm/yyyy	Notes			
16		Idea		Name		dd/mm/yyyy	Notes			
17		Idea		Name		dd/mm/yyyy	Notes			
18		Idea		Name		dd/mm/yyyy	Notes			
19		Idea		Name		dd/mm/yyyy	Notes			
20		Idea		Name		dd/mm/yyyy	Notes			
21		Idea		Name		dd/mm/yyyy	Notes			
22		Idea		Name		dd/mm/yyyy	Notes			
23		Idea		Name		dd/mm/yyyy	Notes			
24		Idea		Name		dd/mm/yyyy	Notes			
25		Idea		Name		dd/mm/yyyy	Notes			
26		Idea		Name		dd/mm/yyyy	Notes			

# HL7 FINLAND



Affiliate | Denmark 



Affiliate | Norway 



senso<sup>o</sup>trend

# Q&A

**Thank you for  
participating!**